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**WHAT IS CLAIMED IS:**

- 1 1. A method comprising the steps of:
  - 2 receiving video data, the video data including a plurality of frames having a first
  - 3 presentation sequence;
  - 4 generating a frame index, wherein the frame index includes a plurality of frame index entries
  - 5 corresponding to the plurality of frames;
  - 6 determining using the frame index a subset of frames of the plurality of frames based on a
  - 7 second presentation sequence; and
  - 8 providing the each frame of the subset of frames to a display client based on the second
  - 9 presentation sequence.
- 1 2. The method of Claim 1, further including the step of receiving a presentation request, wherein the
- 2 second presentation sequence is based on the received presentation request.
- 1 3. The method of Claim 2, wherein the presentation request is received from the display client.
- 2 4. The method of Claim 2, wherein the presentation request is received from a remote control device
- 1 based on an input from a user of the display client.
- 2 5. The method of Claim 2, wherein the presentation request is received from a display client over a
- 1 network.
- 1 6. The method of Claim 1, wherein the video data includes encoded video data.
- 1 7. The method of Claim 6, wherein the video data includes MPEG video data.

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- 1    8. The method of Claim 1, further including the step of storing a representation of the video in a  
2    database, wherein the frame index is generated based on the storage of the representation of the  
3    video data in the database.
- 1    9. The method of Claim 1, wherein the frame index is generated based on the storage of the video  
2    data at a video source.
- 1    10. The method of Claim 1, wherein each frame index entry of the plurality of frame index entries  
2    includes a frame order value based on a location of the associated frame within a received  
3    sequence of the plurality of frames.
- 1    11. The method of Claim 1, wherein each frame index entry of the plurality of frame index entries  
2    includes a frame type value based on a frame type selected from a group consisting of: an  
3    intracoded frame, a forward predicted frame, and a bi-directional predicted frame.
- 1    12. The method of Claim 1, wherein each frame index entry of the plurality of frame index entries  
2    includes a frame offset value based on a offset from a first storage location of a start of a stored  
3    data representing a corresponding frame of the plurality of frames.
- 1    13. The method of Claim 1, wherein each frame index entry of the plurality of frame index entries  
2    includes a frame size value based on a size of a stored data representing a corresponding frame  
3    of the plurality of frames.
- 1    14. The method of Claim 1, wherein the first presentation sequence includes a normal forward  
2    presentation and the second presentation sequence includes a fast forward presentation.

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1 15. The method of Claim 14, wherein determining the subset of frames includes identifying at least  
2 one intracoded frame of the plurality of frames using the frame index.

1 16. The method of Claim 15, wherein a presentation of the at least one intracoded frame included in  
2 the subset of frames is based on a desired fast forward presentation rate.

1 17. The method of Claim 14, wherein determining the subset of frames includes identifying at least  
2 one intracoded frame and at least one forward predicted frame of the plurality of frames using  
3 the frame index.

1 18. The method of Claim 17, wherein a presentation of the at least one intracoded frame and at least  
2 one forward predicted frames included in the subset of frames is based on a desired fast forward  
presentation rate.

1 19. The method of Claim 1, wherein the first presentation sequence includes a normal forward  
2 presentation and the second presentation sequence includes a fast reverse presentation.

1 20. The method of Claim 19, wherein determining the subset of frames includes identifying at least  
2 one intracoded frame of the plurality of frames using the frame index.

1 21. The method of Claim 20, wherein the step of providing includes providing the subset of frames  
2 in a reverse order compared to a forward order of the first presentation sequence.

1 22. The method of Claim 20, wherein a number of intracoded frames included in the subset of  
2 frames is based on a desired fast reverse presentation rate.

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1    23. The method of Claim 19, wherein the step of determining the subset of frames includes the steps  
2    of:

3       identifying a first group-of-pictures of the plurality of frames, the first group of pictures  
4       including at least one intracoded frame and at least one forward predicted frame;

5       identifying a second group-of-pictures of the plurality of frames, the second group of  
6       pictures including at least one intracoded frame and at least one forward predicted  
7       frame;

8       and wherein the second group-of-pictures occurs subsequent to the first group-of-pictures in  
9       the first presentation sequence.

1    24. The method of Claim 23, wherein the step of providing includes the steps of:

2       providing the second group-of-pictures to the display client; and

3       providing the first group-of-pictures to the display client subsequent to the second group-of-  
4       pictures.

1    25. The method of Claim 23, wherein a number of intracoded frames and a number of forward  
2       predicted frames included in the subset of frames is based on a desired fast reverse presentation  
3       rate.

1    26. The method of Claim 23, wherein each frame index entry of the plurality of frame index entries  
2       includes at least one group-of-pictures order value, wherein the group-of-pictures order value is  
3       based on a location of a corresponding frame within the first presentation sequence of the group-  
4       of-pictures associated with the corresponding frame.

1    27. The method of Claim 1, wherein the first presentation sequence includes a normal forward  
2       presentation rate and the second presentation sequence includes a reverse presentation rate.

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1 28. The method of Claim 27, wherein the step of determining the subset of frames includes the steps  
2 of:

3 identifying a first group-of-pictures of the plurality of frames;  
4 identifying a second group-of-pictures of the plurality of frames; and  
5 wherein the second group-of-pictures occurs subsequent to the first group-of-pictures in the  
6 first presentation sequence.

1 29. The method of Claim 28, wherein the step of providing includes the steps of:

2 providing the second group-of-pictures to the display client; and  
3 providing the first group-of-pictures to the display client subsequent to the second group-of-  
4 pictures.

1 30. The method of Claim 28, wherein each frame index entry of the plurality of frame index entries  
2 includes at least one group-of-pictures order value, wherein the group-of-pictures order value is  
3 based on a location of a corresponding frame within the first presentation sequence of the group-  
4 of-pictures associated with the corresponding frame.

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- 1 31. A method comprising the steps of:  
2 receiving a first subset of frames of a plurality of frames, the first subset of frames having a  
3 first forward presentation sequence;  
4 receiving a second subset of frames of the plurality of frames subsequent to the first subset  
5 of frames, the second subset of frames having a second forward presentation  
6 sequence;  
7 providing for display the first subset of frames in a first reverse presentation sequence,  
8 wherein the first reverse presentation sequence is an opposite order of the first  
9 forward presentation sequence; and  
10 providing for display the second subset of frames in a second reverse presentation sequence,  
11 wherein the second reverse presentation sequence is an opposite order of the second  
12 forward presentation sequence.
- 1 32. The method of Claim 31, further including the step of requesting a presentation mode, wherein  
2 the first subset and second subset are generated based on the requested presentation mode.
- 1 33. The method of Claim 32, wherein the presentation mode is selected from a group consisting of:  
2 a fast reverse presentation and a reverse presentation.
- 1 34. The method of Claim 31, wherein the steps of providing for display the first subset and the  
2 second subset includes decoding the first subset and second subset.
- 1 35. The method of Claim 31, wherein the first subset of frames includes a first group-of-pictures  
2 and the second subset of frames includes a second group-of-pictures.
- 1 36. The method of Claim 35, wherein the first group-of-pictures includes at least a first intracoded  
2 frame and the second group-of-pictures includes at least a second intracoded frame.

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- 1 37. The method of Claim 35, wherein the first group-of-pictures includes at least a first intracoded
- 2 frame and at least a first forward predicted frame and the second group-of-pictures includes a at
- 3 least a second intracoded frame and at least a second forward predicted frame.

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1    38. A method comprising the steps of:  
2        providing video data to a video client, the video data including a plurality of frames having a  
3              first presentation sequence;  
4        receiving at a first time a pause request sent from the video client at a second time, the  
5              second time previous to the first time;  
6        determining, based on the pause request, a last frame stored at the video client after the  
7              second time and before the first time;  
8        preparing to provide a next frame, the next frame including a frame subsequent in the first  
9              presentation sequence to the last frame stored by the video client.

1    39. The method of Claim 38, further including the steps of:  
2        receiving at a third time a resume request sent from the video client at a fourth time, the  
3              fourth time previous to third time; and  
4        providing the next frame to the video client.

1    40. The method of Claim 39, further including the step of providing, after the first time and before  
2        the second time, at least one frame subsequent to the last frame to the video client, and wherein  
3        the next frame is subsequent to a last frame of the at least one frame provided to the video client  
4        after the first time and before the second time.

1    41. The method of Claim 39, wherein the next frame includes a frame immediately subsequent to  
2        the last frame in the first presentation sequence.

1    42. The method of Claim 38, wherein the pause request includes a jump request, the jump request  
2        indicating a shift in a presentation of the video data by a first number of frames.

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1    43. The method of Claim 42, wherein the next frame includes a frame subsequent to the last frame  
2    in the first presentation sequence by the first number of frames.

1    44. The method of Claim 42, further including the step of providing the next frame to the video  
2    client.

1    45. The method of Claim 38, wherein the pause request includes a last frame buffered value to  
2    indicate the last frame stored at the video client.

1    46. The method of Claim 45, wherein the last frame buffered value includes a time value  
2    representative of a location of the last frame in the first presentation sequence.

1    47. The method of Claim 38, wherein the step of preparing includes locating the next frame in the  
2    video data.

1    48. The method of Claim 38, wherein the step of preparing includes using the frame index to locate  
2    the next frame based on the pause request.

1    49. The method of Claim 48, further including the step of obtaining a frame index, wherein the  
2    frame index includes a plurality of frame index entries corresponding to the plurality of frames.

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- 1 50. A system comprising:
- 2       an input interface having an input and an output, said input interface to receive digital video
- 3            data having a plurality of frames in a first presentation sequence;
- 4       a recording module having an input coupled to the input of said input interface and an
- 5            output, said recording module to generate a frame index based on the plurality of
- 6            frames, said frame index including a plurality of frame index entries corresponding
- 7            to the plurality of frames;
- 8       a presentation control having an input coupled to the output of said recording module and an
- 9            output, the presentation control to determine a subset of the plurality of frames
- 10           having a second presentation sequence using said frame index.
- 11 51. The system of Claim 50, further including an output interface having an input coupled to the
- 12       output of said presentation control, said output interface to provide the subset of frames to a
- 13       display client based on the second presentation sequence.
- 14 52. The system of Claim 50, further including a database having an input coupled to the output of
- 15       said recording module and an output coupled to the input of said presentation control, said
- 16       database to store the video data.
- 17 53. The system of Claim 50, wherein each frame index entry of the plurality of frame index entries
- 18       includes a frame order value based on a location within a received sequence of a corresponding
- 19       frame of the plurality of frames.
- 20 54. The system of Claim 50, wherein each frame index entry of the plurality of frame index entries
- 21       includes a frame type value based on a frame type selected from a group consisting of: an
- 22       intracoded frame, a forward predicted frame, and a bi-directional predicted frame.

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- 1 55. The system of Claim 50, wherein each frame index entry of the plurality of frame index entries  
2 includes a frame offset value based on a offset from a first storage location of a start of a stored  
3 data representing a corresponding frame of the plurality of frames.
- 1 56. The system of Claim 50, wherein each frame index entry of the plurality of frame index entries  
2 includes a frame size value based on a size of a stored data representing a corresponding frame  
3 of the plurality of frames.
- 1 57. The system of Claim 50, wherein the first presentation sequence includes a normal forward  
2 presentation and the second presentation sequence includes a fast forward presentation.
- 1 58. The system of Claim 57, wherein said presentation control is to determine the subset of frames  
2 by identifying at least one intracoded frame of the plurality of frames using the frame index.
- 1 59. The system of Claim 57, wherein said presentation control is to determine the subset of frames  
2 by identifying at least one intracoded frame and at least one forward predicted frame of the  
3 plurality of frames using the frame index.
- 1 60. The system of Claim 50, wherein the first presentation sequence includes a normal forward  
2 presentation and the second presentation sequence includes a fast reverse presentation.
- 1 61. The system of Claim 60, wherein said presentation control is to determine the subset of frames  
2 by identifying at least one intracoded frame of the plurality of frames using the frame index.
- 1 62. The system of Claim 61, wherein said presentation control is to provide the subset of frames in a  
2 reverse order compared to a forward order of the first presentation sequence.

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- 1    63. The system of Claim 61, wherein said presentation control is to determine the subset of frames  
2    by identifying a first group-of-pictures and a second group of pictures of the plurality of frames,  
3    wherein the second group-of-pictures occurs subsequent to the first group-of-pictures in the  
4    forward presentation sequence, and then to include the first group-of-pictures and the second  
5    group-of-pictures in the subset, wherein the second group-of-pictures occurs previous to the first  
6    group-of-pictures in the second presentation sequence of the subset.
- 1    64. The system of Claim 63, wherein the first group-of-pictures and the second group-of-pictures  
2    each include at least one intracoded frame.
- 1    65. The system of Claim 63, wherein the first group-of-pictures and the second group-of-pictures  
2    each include at least one intracoded frame and at least one forward predicted frame.
- 1    66. The system of Claim 63, wherein each frame index entry of the plurality of frame index entries  
2    includes at least one group-of-pictures order value, wherein the group-of-pictures order value is  
3    based on a location of a corresponding frame within the first presentation sequence of the group-  
4    of-pictures associated with the corresponding frame.
- 1    67. The system of Claim 50, wherein the first presentation sequence includes a normal forward  
2    presentation rate and the second presentation sequence includes a reverse presentation rate.
- 1    68. The system of Claim 67, wherein said presentation control is to determine the subset of frames  
2    by identifying a first group-of-pictures and a second group of pictures of the plurality of frames,  
3    wherein the second group-of-pictures occurs subsequent to the first group-of-pictures in the  
4    forward presentation sequence, and then to include the first group-of-pictures and the second  
5    group-of-pictures in the subset, wherein the second group-of-pictures occurs previous to the first  
6    group-of-pictures in the second presentation sequence of the subset.

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- 1    69. The method of Claim 68, wherein each frame index entry of the plurality of frame index entries  
2    includes at least one group-of-pictures order value, wherein the group-of-pictures order value is  
3    based on a location of a corresponding frame within the first presentation sequence of the group-  
4    of-pictures associated with the corresponding frame.